

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/000121

Box No. I

Basis of the report

1. With regard to the language, this report is based on:

- ☐ the international application in the language in which it was filed
- ☐ the translation of the international application into _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3(a) and 23.1(b))
- ☐ publication of the international application (Rule 12.4(a))
- ☐ international preliminary examination (Rule 55.2(a) and/or 55.3(a))

2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):

- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-35 _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- pages _____ as originally filed/furnished
- pages* _____ as amended (together with any statement) under Article 19
- pages* 1-15 _____ received by this Authority on 04.08.2004 with the letter of 04.08.2004
- pages* _____ received by this Authority on _____
- ☐ the drawings:
- pages _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (specify): _____
- ☐ any table(s) related to sequence listing (specify): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (specify): _____
- ☐ any table(s) related to sequence listing (specify): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	1-15	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-15	NO
Industrial applicability (IA)	Claims	1-15	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)**Citations:**

D1: EP-A-0368215
D2: GB-A-1536549
D3: DE-A-4439156
D4: US-A-2001/031825.

The subject matter of the claims

Claim 11 relates to a composition containing:

- (i) a melamine formaldehyde condensate;
- (ii) an etherified melamine formaldehyde condensate;
- and
- (iii) a polymer dispersion.

The term "melamine formaldehyde condensate" in point (i) of the claim covers both non-etherified and etherified condensates. The use of the numbering (i) to (iii) implies that the individual components must be different from one another. Thus, claim 1 relates to a composition containing:

- (i) a first etherified melamine formaldehyde condensate or a non-etherified melamine formaldehyde condensate;

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citations and explanations supporting such statement

- (ii) a second melamine formaldehyde condensate, which is different from the (i); and
- (iii) a polymer dispersion.

Novelty (PCT Article 33(2))

D1 describes a synthetic resin mixture consisting of a mixture of:

- (i) an etherified melamine formaldehyde condensation product; and
- (ii) an acryl copolymer (page 2, lines 44-49).

The subject matter of the claims differs from D1 in that, in addition, a second etherified or a non-etherified melamine formaldehyde resin is present.

D2 (example 2) describes an impregnating solution containing a mixture of:

- (i) the melamine resin Kauramin, which is equivalent to a non-etherified melamine resin, and
- (ii) an acrylate dispersion.

The subject matter of the claims differs from D2 in that an etherified melamine resin is additionally present in the impregnating solution.

D3 discloses compositions of optionally etherified melamine formaldehyde resin and an acryl polymer (page 2, /...

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lines 50-53 and page 3, lines 9-10). The simultaneous presence of an etherified and a non-etherified melamine formaldehyde resin or of two different etherified melamine formaldehyde resins is not disclosed.

D4 (page 1, paragraph [0007] and paragraphs [0011] to [013]; page 2, paragraph [0020]) discloses adhesive compositions of:

- (i) an etherified melamine resin, for example a melamine formaldehyde resin, in combination with
- (ii) a polymer and, optionally,
- (iii) a non-etherified melamine resin.

The amino resin content is between 10 wt.% and 90 wt.%, the proportion of etherified resin relative to the resin content is component at least 4 wt.% and the polymer content is between 5 wt.% and 60 wt.% relative to the solids of the resin.

With D4 as the point of departure, a plurality of choices are required to arrive at the subject matter of the claims:

- (i) the choice of melamine formaldehyde resin as an etherified resin;
- (ii) the choice of a quantity of etherified resin within the scope of the claims; and
- (iii) the choice of a polymer content within the scope of the claims.

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D4 discloses no such plurality of choices.

Novelty over D1 to D4 can therefore be acknowledged.

Inventive step (PCT Article 33(3))

An inventive step cannot be recognised, unless inventiveness is acknowledged in respect of the whole scope of the claims. In other words, both the alternatives in claim 11 - namely (a) the use of a composition that contains a non-etherified melamine formaldehyde condensate in addition to components (ii) and (iii) and (b) the use of a composition that contains a second etherified melamine formaldehyde condensate in addition to components (ii) and (iii) - must involve an inventive step.

Alternative (a):

Document D1, like the present application, is directed to synthetic resin mixtures for the production of coating films with which wooden materials, that is to say three-dimensional objects, can be coated (page 2, lines 1-4). D1 must therefore be regarded as the closest prior art.

As stated above, the alternative according to the claims differs from D1 in that, in addition to an etherified melamine formaldehyde resin and the acryl copolymer, a non-etherified melamine formaldehyde resin is present.

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The problem of interest in the application is that of developing improved films, for example, for coating furniture (page 2, lines 5-17 of the present application).

The comparative tests submitted by the applicant have shown that this problem is solved by the additional use of non-etherified melamine formaldehyde resin.

Neither D1 nor any of the other documents contain anything to suggest that improved films for coating furniture can be obtained by using non-etherified melamine formaldehyde resins in addition to etherified melamine formaldehyde resins and a copolymer component. In consequence, the alternative according to the claims is inventive.

Alternative (b):

Document D1, like the present application, is directed to synthetic resin mixtures for the production of coating films with which wooden materials, that is to say three-dimensional objects, can be coated (page 2, lines 1-4). D1 must therefore be regarded as the closest prior art.